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| 09/601,313 | 09/11/2000 | Beat Huber | L&L8293 | 2232 |

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

COLE, LAURA C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1744

DATE MAILED: 09/29/2003

CS

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,313

Applicant(s)

HUBER ET AL.

Examiner

Laura C Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 June 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Attachments A, B*.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Desimone et al., USPN 5,339,482.

Desimone et al. discloses a toothbrush having a non-slip surface that has a first molded part (Figures 1 and 2 (12) and (16)) and a second molded part (Figure 1 (22)) that forms a handle, each of the molded parts consisting of a different material (Column 4 Line 64 to Column 5 Line 24) that do not bond during an injection-molding operation producing a firm fit between the molded parts, one molded part (Figure 1 (22)) is partially enclosed by the other molded part. A positive fit is formed by portions that engage the parts and additionally by projections and recesses (Column 4 Lines 34-45.) The two materials are different (Column 4 Line 64 to Column 5 Line 24). One of the two molded parts, the insert (Figure 1 (22)) consists of two or more plastic components (the ribs (Figure 1 (30)) that are not bonded with the other plastic material of the other molded part. The brush head can be molded from polypropylene and the handle can be molded from styrene-acrylonitrile copolymers (Column 4 Line 46 to Column 5 Line 2.)

Desimone et al. also discloses a method of producing a toothbrush by means of injection molding (Column 4 Line 68 to Column 5 Line 2; Column 5 Lines 22-24) each part separately (Abstract lines 3-5; Column 5 Lines 35-45) not forming any bond.

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2. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Leversby et al., USPN 5,761,759.

Leversby et al. disclose a method of making a toothbrush including the steps of injection molding one of the two molded parts (Abstract Lines 3-4; (2)) from a first plastic material (Column 2 Lines 64-65), injection molding the other molded part (Abstract Lines 7-13; (11)) from a second plastic material (Column 2 Lines 65-67), so that one of the two molded parts is at least partially enclosed by the other of the two molded parts (Figures 1-3 show the second part (11) enclosing the first part (2)), the second plastic material does not form a chemical bond during the injection molding operation (Column 4 Lines 7-16), and through the injection-molding operation the two molded parts are firmly connected (Column 4 Lines 13-16).

3. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Dair et al., USPN 6,076,223.

Dair et al. disclose a method of making a toothbrush including the steps of injection molding one of the two molded parts from a first plastic material (Column 4 Lines 41-44), injection molding the other molded part from a second plastic material (Column 4 Lines 45-49), so that one of the two molded parts is at least partially enclosed by the other of the two molded parts (Figures 1 and 2), the second plastic material does not form a chemical bond during the injection molding operation, and through the injection-molding operation the two molded parts are firmly connected (Column 4 Lines 15-18, 36-56). Further, the degree of shrinkage of the first plastic (such as a cellulose acetate, Column 4 Lines 1-2) can be as low as 0.003 which is lower

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than a second plastic material (such as silicone rubber, Column 4 Line 12) which can be as high as 0.006 (See Attachments A and B).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Desimone et al., USPN 5,339,482.

Desimone et al. discloses all elements mentioned above, however does not disclose that the second molded part consists of styrene acrylonitrile, acrylonitrile-butadiene styrene, polyamide, polycarbonate, or polyester.

Desimone et al. does disclose the use of styrene acrylonitrile copolymers and thermoplastic polymers in general (Column 4 Lines 64-68), but not in the case of the second part (Figure 1 (22)). Desimone et al. further discloses that the insert (22) may be fabricated from a material that is compressible (Column 5 Lines 11-15) or non-compressible (Column 5 Lines 24-34.) It would have been obvious to one having ordinary skill in the art at the time the invention was made to use acrylonitrile-butadiene styrene, polyamide, polycarbonate, or polyester as an engineering choice, since they are thermoplastic polymers and can be manufactured inexpensively.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dair et al., USPN 6,076,233.

Dair et al. disclose all elements above including the molded part of the toothbrush handle is injection molded from styrene acrylonitrile in the first step (Column

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3 Line 66 to Column 4 Line 3). Dair et al. do not disclose that the second molded part is made from polypropylene.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to mold the second part from polypropylene since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leversby et al., USPN 5,761,759.

Leversby et al. disclose all elements above however do not disclose specific materials.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to mold the first part from styrene acrylonitrile and to mold the second part from polypropylene since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

Applicants Arguments

6. In the response filed 19 June 2003, Paper No. 13, Applicant argues that:

A. Page 7 paragraph 1 Applicant further defines "shrinkage" as "a phenomenon that appears during injection molding of plastic materials and diminish by cooling of the molded part..." Page 7 paragraph 2 further states that inexpensive plastic material can be used that previously could not have been used for toothbrushes due to "inadequate

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resistance to aggressive substances in tooth-cleaning agents.” Page 7 paragraph 3 further states that the firm connection between two molded parts is formed by injection molding as a result of the “shrinkage” after the injection operation, and therefore does not require an assembling operation.

B. Desimone requires the separate formation of two molded pieces that are “compression fit,” and wherein “the insert is manually or automatically inserted within a handle aperture after the separate molding steps.” (Response, Page 7 paragraph 4)

C. In Desimone only one of the two materials can be a hard plastic (Page 8 Lines 2-3).

D. In Desimone the insert must be formed in a separate process.

E. Desimone has different structural properties than the brush of Desimone, as the two parts of Desimone are “pliable” or “compressible.”

F. Since the Desimone structure is “compression fit” water or contaminant penetration could easily occur.

7. In the supplemental response filed 06 August 2003, Paper No. 14, Applicant argues that:

G. There are several inherent structural differences in Desimone from Applicant’s invention since the claimed invention uses “shrinkage fitting” of two molded parts made of hard plastic, specifically two different hard plastics.

H. There are several inherent structural differences in Desimone from Applicant’s invention since the claimed invention uses SAN, which is a transparent inexpensive plastic and is resistant to toothpaste products.

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I. There are several inherent structural differences in Desimone from Applicant's invention since the claimed invention uses the method of "shrink fit molding" to allow for complex geometry or complex shapes.

J. Desimone toothbrushes are not watertight in the region of the contact surfaces.

Response to Arguments

8. Applicant's arguments filed on 19 June 2003 and 06 August 2003 have been fully considered but they are not persuasive.

A. Desimone states that both process steps are accomplished by injection molding and does not recite or teach any chemical reactions that occur separately, so the injection molding process must include a cooling step, thereby creating the phenomenon of "shrinkage." The Examiner disagrees with the statement that "inexpensive plastic material...can be used previously could not have been used for toothbrushes..." There are numerous inexpensive plastics that have been used for toothbrushes sufficiently. It seems that one of the applicant's improvements is that by using a toothbrush constructed from SAN to resist substances in tooth-cleaning agents, however it is not claimed as such presently. Furthermore, Claims 1-7 are to a toothbrush and Claims 8-10 are to a method. Claim 1, a structure, recites a molding operation and a connecting operation (shrink fit), so it has been considered as a product-by-process claim. Desimone recites all of the structure as claimed (see above) and therefore includes the claimed invention of claims 1-7. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability

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is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In *re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.

B. Again, Desimone does describe securing the two molded pieces by a “compression fit.” The claim requires “first and second molded parts are firmly connected to one another by a shrink fit...” Desimone does describe the structure that the two parts are firmly connected, therefore meets the product by process claim. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In *re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.

C. It is unclear what type of plastic is considered by the Applicant to be categorized as “hard plastic.” Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., two different *hard* plastics) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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D. In that the Desimone the insert must be formed in a separate process, it does not provide for a structural difference between that and the claimed invention (of which each plastic part is formed in a separate process.) Further, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.

E. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the plastic molded parts are not pliable or compressible) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

F. Desimone does not state that there are gaps between the two molded parts and as the second part must be compressed to fit within the recess of the first molded part and from the drawings, it is clear that the recess completely receives the compressed second part without any gaps. Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., not having gaps to prevent water or contaminant penetration) are not recited in the rejected claim(s). Although the claims

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are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

G. As stated above, Desimone includes the structure of the claimed invention. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In *re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113. Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., two different *hard* plastics) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

H. Desimone may be manufactured from a number of inexpensive plastic materials. It seems that one of the applicant's improvements is that by using a toothbrush constructed from SAN to resist substances in tooth-cleaning agents, however it is not claimed as such presently. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that one plastic molded part comprises the

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material SAN) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

I. It appears that Desimone is of a complex geometry or shape and although it is not constructed from "shrink fit molding" Desimone includes all of the claimed structure (see above on product by process comments). Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., complex geometry) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

J. Desimone does not state that there are gaps between the two molded parts and as the second part must be compressed to fit within the recess of the first molded part and from the drawings, it is clear that the recess completely receives the compressed second part without any gaps. Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., watertight) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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In both responses, the terms "shrinkage," "shrink fit molding," and "injection molding" appears to be used interchangeably. "Injection molding" including those "shrinking" processes itself. The Examiner has interpreted these terms to be encompassing the terminology.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

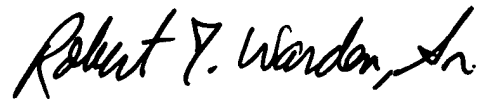
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (703) 305-7279. The examiner can normally be reached on Monday-Thursday, 7am - 4:30pm, alternating Fridays.

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10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

LCC
LCC



ROBERT J. WARDEN, SR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700